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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,550	01/14/2004	Shinichi Shoji	OMRNP073	5997

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EXAMINER

KRAMSKAYA, MARINA

ART UNIT PAPER NUMBER

2858

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,550

Applicant(s)

SHOJI ET AL.

Examiner

Marina Kramskaya

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-12 is/are pending in the application.
4a) Of the above claim(s) 5-12 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 3-4 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 03 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. This application contains claims 5-12 drawn to an invention nonelected without traverse in Paper No. 11/03/2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuruoka et al., US 5,992,240, in view of Zimmerman et al., US 6,437,772.

Tsuruoka discloses a capacitance sensor having specified directionality, said capacitance sensor comprising:

- detection electrodes (37a & 37b, FIG. 9);
- an insulating material (portion 33 of the insulation 31, FIG. 9) insulating said detection electrodes from each other; and

- a main body (32") containing said detection electrodes and said insulating material and having a detection surface defined by said directionality, said detection surface having unevenness (see 64 in FIG. 10B, column 14, lines 54-55).

Tsuruoka does not disclose the unevenness of the surface having a plurality of mutually adjacent protrusions with thickness decreasing in the direction of each protrusion.

Zimmerman discloses a capacitive sensor wherein the unevenness of the surface has a plurality of mutually adjacent protrusions (61 with voids 64 in between each protrusion) with thickness decreasing in the direction of each protrusion (see FIG. 7B).

Therefore, it would have been obvious to a person of ordinary skill in the art to include uneven protrusions with decreasing thicknesses in the direction of each protrusion, as taught by Zimmerman, in the sensor of Tsuruoka, in order detect the capacitance formed between each protrusion.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuruoka et al., US 5,992,240, in view of Zimmerman et al., US 6,437,772, as applied to claim 3 above, and further in view of Kato et al., US 6,456,198.

Tsuruoka, as modified, discloses the capacitance sensor as applied to Claim 3 above.

Tsuruoka does not disclose

- a shield electrode inside said main body, said shield electrode being open toward said detection surface, said detection electrodes being disposed inside said shield electrode; and
- a protective cover covering said shield electrode and said detection electrodes.

Kato discloses the capacitance sensor comprising:

- a shield electrode (composed of 72, 73, 74) inside said main body (61), said shield electrode being open toward said detection surface (toward 54), said detection electrodes being disposed inside said shield electrode (See FIG. 7); and
- a protective cover (case 61 and top member 54) covering said shield electrode and said detection electrodes.

Therefore, it would have been obvious to a person of ordinary skill in the art to include a shield electrode and a protective cover, as taught by Kato in the sensor of Tsuruoka, in order to protect the detection electrodes.

Response to Arguments

5. Applicant's arguments with respect to claims 3-4 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Speakman, US 6,503,831, discloses a capacitive sensor with an

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uneven surface with several adjacent protrusions with thickness decreasing in the direction of each protrusion.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Kramskaya whose telephone number is (571)272-2146. The examiner can normally be reached on M-F 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571)272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MK

Marina Kramskaya
Examiner
Art Unit 2858



DIANE LEE
SUPERVISORY PATENT EXAMINE